







Part- 1

AirTracker 2

AirTracker 2 is a simple Android application that allows users to track real-time flight status by entering a flight number. It fetches live flight data including airline name, origin, destination, status, and live GPS coordinates (latitude, longitude, altitude) using the [AviationStack API](#).

Features

-  Enter any flight number to fetch real-time flight data
 -  Displays live flight coordinates (latitude, longitude, altitude)
 -  Shows flight status, departure, and arrival airports
 -  Live update timestamp
 -  Clean UI using Material Design principles
 -  Uses AviationStack API to retrieve data
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Tech Stack

Technology	Purpose
Kotlin	Programming language
Jetpack / AndroidX	UI Components and View binding
OkHttp	Networking client for API calls
Coroutines	Asynchronous programming
JSON / org.json	Parsing API responses

How it Works

1. User enters a valid flight number (e.g. **AI202**)
 2. App hits the AviationStack API with the flight IATA code
 3. Parses JSON response to extract:
 - Airline
 - From / To Airports
 - Live status and location
 4. Displays results in a scrollable result card
 5. Optionally shows live location update time
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Project Structure

```
swift
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AirTracker2/
|
├─ app/
|   └─ src/
|       └─ main/
|           ├── java/com/example/airtracker2/
|           │   └─ MainActivity.kt           // Main logic
|           └─ res/
|               ├── layout/activity_main.xml // UI layout
|               └─ drawable/edittext_background.xml // (optional)
Custom style
|   └─ AndroidManifest.xml
└─ build.gradle
```

API Used

- **AviationStack API**
 - Base URL: <https://api.aviationstack.com/v1/flights>

Sample:

```
bash
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https://api.aviationstack.com/v1/flights?access\_key=YOUR\_API\_KEY&flight\_iata=AI202
```

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Requirements

- Android Studio Flamingo or above
 - Internet connection for API requests
 - Min SDK: 21+
 - Replace [access_key](#) in the API URL with your own from aviationstack.com
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How to Run

Clone this repo:

```
bash
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git clone https://github.com/your-username/airtracker2.git
```





- 1.
2. Open in Android Studio

Replace your AviationStack API key in `MainActivity.kt`:

```
kotlin
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val url =
"https://api.aviationstack.com/v1/flights?access_key=YOUR_API_KEY&flight_iata=$flightNumber"
```

- 3.
4. Run the app on emulator or device

To-Do / Improvements

-  Add real-time auto-refresh with interval
-  MapView integration for live flight location
-  Push notifications for flight status updates
-  Historical tracking support

Acknowledgements

- [AviationStack API](#) for providing the flight data
- Android Dev documentation and community